



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200  
Fax 613 632-5246

C3-12-4

Job Sheet 177503



Part No: C3-12-4

Job Qty: 40 ea

Part Name: Lock Roller



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 5/14/18

Job Tracking No:

Due Date: 6/28/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG C3-12-4 Rev. 1A IPP Rev. A 18.04.19 new issue DP Verify DD

Ship Via:

### Bill of Materials

### Job Routing

| Op No | Operation          | Qty    | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           | Sign-off   |
|-------|--------------------|--------|------------|----------|-----------|---------|-----------------------|-----------|------------|
|       |                    |        |            |          | Setup hrs | Run Hrs | Workcenter / Supplier | Lead Time |            |
| 90    | Start up Operation | 40 Ea  |            | 6/28/18  | 0.00      | 0.00    | Start Up Machining-4  |           | 14-8-9 JBD |
| 120   | CNC Lathe          | 40 pcs |            | 6/28/18  | 1.00      | 4.00    | MORI SL-154           |           | 14-8-9 JBD |
| 130   | QC                 | 40 pcs |            | 6/28/18  | 0.00      | 0.00    | QC2 Machining-5       |           | 15-08-09   |
| 140   | QC                 | 40 pcs |            | 6/28/18  | 0.00      | 0.00    | QC8 Machining-5       |           | 15-08-09   |
| 150   | Outsource          | 40 pcs |            | 6/28/18  | 0.00      | 0.00    | Outsource1            |           | 15-08-10   |
| 180   | Outsource          | 40 pcs |            | 6/28/18  | 0.00      | 0.00    | Outsource15           |           |            |
| 190   | Packaging          | 40 pcs |            | 6/28/18  | 0.00      | 0.00    | Packaging2            |           |            |
| 200   | QC                 | 40 pcs |            | 6/28/18  | 0.00      | 0.00    | QC6                   |           |            |
| 210   | Packaging          | 40 pcs |            | 6/28/18  | 0.00      | 0.00    | Packaging3            |           |            |
| 220   | QC21-SA            | 40 Ea  |            | 6/28/18  | 0.00      | 0.00    | QC21                  |           |            |

Part Op 120 - 1-Machine as per folio FC097 FOLIO REV: \_\_\_\_\_ DWG REV: \_\_\_\_\_ 2-Debur

Descriptions: 150 - 1--Issue P/O to Metcore ; P/O \_\_\_\_\_ RC 53-56 2-Bead blast 3- Certificate of Conformity is required

\*\*\*NOTE\*\*\* DROP SHIP TO FINISHER Metcore to ship directly to Groupe Altech or ATG\*\*\*

180 - -Issue P/O to Groupe Altech; P/O \_\_\_\_\_ -Nickel plate, QQ-N-290, Class 2, Grade E or F -Nickel Plate .0004-.0006 - Certificate of Conformity is required

190 - Receive

210 - Identify and Stock

### Job BOM

| Part / Item   | Component Name      | Quantity            | Operation             | Container |
|---------------|---------------------|---------------------|-----------------------|-----------|
| M4140H-R0.750 | 4140 Round Bar .750 | 1.6400 ft (.041 ea) | 90-Start up Operation |           |

### Job Allocations

| Operation             | Component Part | Required | Inventory | Allocated |
|-----------------------|----------------|----------|-----------|-----------|
| 90-Start up Operation | M4140H-R0.750  | 2        | 13        | 0         |

### Part Specifications

Specifications could not be found.





DQA: \_\_\_\_\_ Date: \_\_\_\_\_

## WORK ORDER NON-CONFORMANCE / UPDATE



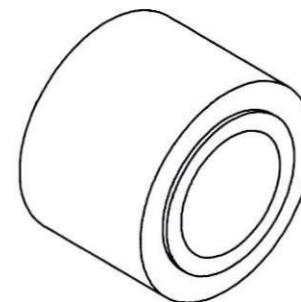
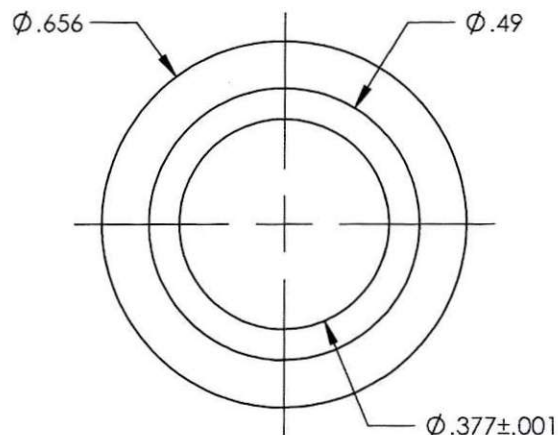
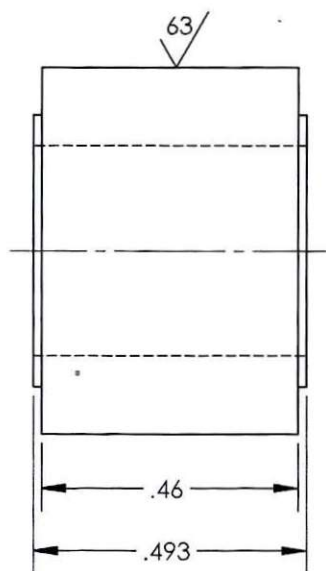
QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only

| Work Order:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | DISPOSITION          |  |  |  | AGAINST DEPARTMENT/PROCESS |  |  |  |            |  |  |  |                     |  |  |  |             |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------|--|--|--|----------------------------|--|--|--|------------|--|--|--|---------------------|--|--|--|-------------|--|--|
| Part No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | Rework               |  |  |  | Skid-tube                  |  |  |  | Cross tube |  |  |  | Water Jet           |  |  |  | Engineering |  |  |
| NCR No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | Scrap                |  |  |  | Machining                  |  |  |  | Small Fab  |  |  |  | Prod. Eng. Coord.   |  |  |  | Quality     |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | Use-as-is            |  |  |  | Thermoforming              |  |  |  | Finishing  |  |  |  | Rec/Store/Packaging |  |  |  | Other       |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | Suspected Unapproved |  |  |  | Large Fab                  |  |  |  | Composite  |  |  |  | Supplier            |  |  |  |             |  |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | Step #:              |  |  |  |                            |  |  |  |            |  |  |  |                     |  |  |  |             |  |  |
| Description Work Order                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                      |  |  |  |                            |  |  |  |            |  |  |  |                     |  |  |  |             |  |  |
| <div><div>Dart Aerospace Ltd.<br/>1270 Aberdeen Street<br/>Hawkesbury, ON K6A 1K7<br/>CANADA<br/>TEL.: 1 613 632-5200<br/>Email: sales@dartaero.com<br/>www.dartaerospace.com</div><div>Date: 08/09/18</div><div>Container No: S100620<br/>Part: C3-12-4<br/>Job No: 177503<br/>Serial No/Batch: S100620<br/>Revision: 1A<br/>Inspector:<br/>Exp Date:<br/>Instructions:</div><div><div><div><div>Environment</div><div>Design</div><div>Doc/Data</div><div>Equip/Tooling</div><div>Handling/Pre</div><div>Material</div><div>Internal Transport</div><div>Tribal Knowledge</div><div>LOA</div><div>Substation</div><div>Past Expiry Date</div><div>Misidentified</div></div><div><div>Root Cause</div><div>No Re-verification</div><div>Operator</div><div>Offset/Setup</div><div>Supplier</div><div>Training</div><div>Use for Testing</div><div>Poor Information</div><div>Rushing</div><div>Product Improvement</div><div>Process Improvement</div><div>Manufacturing Process</div><div>Past Due</div></div><div><div>OTHER :</div><div>Broken/Damage/Defect</div><div>Inspection Incomplete/Unqualified</div><div>Contamination</div><div>Countersink</div><div>Cut Too Short</div><div>Instructions Incomplete/Unclear</div><div>Drill Holes</div><div>Weld</div><div>Wrong Stock Pulled</div><div>Out of Sequence</div><div>Off-set</div><div>Mislabeled</div><div>Fit/Function</div><div>Misaligned/off center</div><div>Positioned Wrong</div><div>Outside Dimensions</div><div>Over/Under tolerance</div><div>Part Incorrect</div><div>Part Lost/Missing</div><div>Part Moved</div><div>Drawing</div><div>Finish</div><div>Misread</div><div>Turning Sequence</div></div></div></div></div> |  |                      |  |  |  |                            |  |  |  |            |  |  |  |                     |  |  |  |             |  |  |

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

| REVISIONS |         |                                                                                                                                                                                                                                           |          |         |          |
|-----------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------|----------|
| REV       | ECR     | DESCRIPTION                                                                                                                                                                                                                               | DATE     | INITIAL | APPROVED |
| 1A        | 14-0111 | CH'D TITLE BLOCK WAS RED BARN IS DART. ADDED NOTE 2. ADDED NOTE 3 AND CORRECTED NICKEL PLATE THICKNESS WAS .0005 IS .0004 - .0006. CH'D DIMENSION TOLERANCE WAS .463 IS .46. WAS Ø.487 IS Ø.49. CH'D DIMENSION WAS Ø.380 IS Ø.377 ± .001. | 8/7/2014 | DJN     | RW       |



- NOTES:
1. POLISH OD AFTER HEAT TREAT.
  2. BAG & LABEL WITH BATCH NUMBER.
  3. NICKEL PLATE .0004-.0006 BAKE AFTER PLATING.

|                                                                                                                           |                                                                                |
|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| <b>DART</b><br>AEROSPACE                                                                                                  |                                                                                |
| TITLE<br><b>LOCK ROLLER</b>                                                                                               |                                                                                |
| DWG NO.<br><b>C3-12-4</b>                                                                                                 | REV<br><b>1A</b>                                                               |
| MAT'L 4140                                                                                                                | DRAWN BY: CANAM                                                                |
| UNLESS OTHERWISE SPECIFIED<br>DIMENSIONS ARE IN INCHES<br>.XXX ± .005 FRACTIONS ± 1/8<br>.XX ± .01 ANGLES ± 5°<br>.X ± .1 | APPROVED<br><i>D. Weil</i><br>HEAT TREAT RC 53-56<br>FINISH SEE NOTE 3<br>SPEC |
| 1. BREAK ALL SHARP EDGES .015 x 45°<br>OR .015R<br>2. DIMENSIONAL LIMITS APPLY AFTER PLATING                              | USED ON MODEL                                                                  |
| SCALE 3:1                                                                                                                 | DATE 11/1/2001                                                                 |
| SHEET 1 OF 1                                                                                                              |                                                                                |

| ASSY QTY | ASSY QTY | B/O | Part #  | UNIT QTY | Description | Material | B/O INFORMATION OR SPECIFICATIONS | PG. |
|----------|----------|-----|---------|----------|-------------|----------|-----------------------------------|-----|
|          |          |     | C3-12-4 | 1        | LOCK ROLLER | 4140     | Ø11/16 X 5/8                      |     |



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# **PURCHASE ORDER** **PO040778**

**Supplier:** GRO002-VC  
Group Altech  
2455 Halpern  
St Laurent  
QC  
H4S 1N9 Canada  
Phone: 514-335-3666  
Fax: 514-335-3868

**PO No:** PO040778  
**PO Date:** 8/20/18  
**Due Date:** 8/23/18  
**Purchase Order Revision:**  
**Revision Date:**  
**Ship-To Contact:** Phone:

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**Via:** Ground  
**Pymt Terms:** Net 30  
**Freight Terms:**  
**Special Comments:**

## **Items**

| Line Item | Job    | Part    | Description                                                                                                                                                                                       | Status | Account | Due Date | Order Quantity | Received Quantity | Balance | Unit Price (CAD) | Extended Price |
|-----------|--------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------|----------|----------------|-------------------|---------|------------------|----------------|
| 1         | 177503 | C3-12-4 | Lock Roller<br>-Issue P/O to<br>Groupe Altech: P/O<br><br>-Nickel plate, QQ-<br>N-290, Class 2,<br>Grade E or F<br>-Nickel Plate .0004-<br>.0006<br>- Certificate of<br>Conformity is<br>required | Firmed | -       | 8/23/18  | 39 pcs         | 0 pcs             | 39 pcs  | \$6.1538467/pcs  | \$240.00       |

39x AUG 23 2018

DAS  
61  
9-89

**Line Item Note** \*\* BIG RUSH \*\*

**Grand Total:** \$240.00

## **Order Notes**

Procurement Quality Clauses  
A005 right of entry  
A012 chemical and physical test report  
A016 personnel qualification  
A017 raw material identification (as applicable)

A022 Apical Processing  
A024 process certifications  
A026 certification of material conformance

A041 quality management system  
A042 dart notification by supplier  
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

Plex 8/20/18 1:49 PM dart.tsimiklis.chrisoula





# Certificat de Conformité / Certificate of Compliance

(011946-1)

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9  
 Tel: 514-335-3666 Fax: 514-335-3868  
 www.groupaltech.com

## Bon de Livraison / Packing Slip

**011946 - 1**

Livré à / Ship to

**DART AEROSPACE LTD**  
 1270 ABERDEEN STREET  
 HAWKESBURY, ON, K6A1K7  
 CANADA  
 Tel.: 613-632-5200 Fax.:

Client / Customer:

**DART AEROSPACE LTD**  
 1270 ABERDEEN STREET  
 HAWKESBURY, ON, K6A1K7  
 CANADA  
 BUYER:

|                              |                                                                           |                                                               |                                                |                   |                                                       |                   |               |                        |
|------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------|-------------------|-------------------------------------------------------|-------------------|---------------|------------------------|
| Date expédition<br>Ship date |                                                                           | Créé Par<br>Generated By                                      | Transport / No de Compte<br>Courier / Acc. No. |                   | Bon de commande Client<br>Customer Purchase Order No. |                   |               |                        |
| 22-Aug-2018                  |                                                                           | Aman                                                          |                                                |                   | 040778                                                |                   |               |                        |
| #Ligne<br>Line#              | No. de Série / # Pièce<br>Part Number /Line Item Details<br>Job # / Ref # | Description pièce(s)                                          | CATG.<br>U/M                                   | Comm.<br>/Ordered | Exp/<br>Shipped                                       | Qté NC/<br>NC Qty | Qté<br>Scrap/ | À venir/<br>Back Order |
| 1                            | C3-12-4<br>Rev.                                                           | C3-12-4<br>NICKEL PLATE QQ-N-290 CLAS 2 GRADE E 0.0004-0.0006 | E-NICKEL STEEL<br>CH                           | 39                | 39                                                    | 0                 | 0             | 0                      |

**DAS  
61  
9-89**

Notes Additionnelles / Additional Notes

Epaisseur réelle  
Actual Thickness

Inspecteur Qualité  
Quality Inspector

Réçu par  
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.  
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.  
 Our financial and legal responsibility will not be higher than the amount of invoice.